

NORTHAMPTON ENERGY AND SUSTAINABILITY COMMISSION

APPROVED MINUTES

March 14, 2019 City Council Chambers 212 Main Street, Northampton, MA 01060 4:00 PM - 5:30 PM

Attendees: Richard Parasiliti, Tim Smith, Ashley Muspratt, Bill Dwight, David Pomerantz, Adin

Maynard, Alisa Klein, Louis Hasbrouck, Mary Biddle

Facilitator: Chris Mason, Energy and Sustainability Officer

Scribe: Douglas Renick

Public Comment Period:

Review/Approve Minutes of 2/12/19 Meeting: Motion to approve by Bill Dwight. Seconded by Alisa Klein. Unanimous approval.

Solarize Domestic Hot Water – Presentation by Spartan Solar:

Presenter Spartan Giordano. 2014 start for company. Spartan began with Coop Power. There are two employees plus contractors. Spartan installed 30 systems last year. Also maintains hot water systems. Focus is domestic hot water systems. Two or more panels on roof and a large tank, 80 gallons. Glycol is circulated through the solar panels, heated and returned. Backup (in top half of tank)—is, if needed, heated electrically. Water reaches 170 degrees in tank in summer. Overheating protection is required. There is a drain back system. These systems don't leak. 70-80% of annual load provided by the hot water system. Data logging and connectivity is part of system. There is an email alert if anything goes wrong. In one of the systems the solar fraction of hot water was 82% in April and 81% over several years. Incentives are a blessing and a curse. Much explanation required. CEC provides rebates. Tax credits. DOER alternative energy certificates. Total incentives about \$9600 for a system. \$10-12K is the average cost of a system. Residential, commercial and municipal systems are treated the same by DOER. HERS rating: a 7 point benefit. 0% interest financing over 7 years. A tankless hot water system can be integrated with solar hot water. Why so few hot water systems installed? Solar PV panels are the star. We advertise: "Best rectangle for you." In super insulated houses the domestic hot water is a bigger piece of the pie. Forced hot water heating systems? Space heating is an option. An expensive challenge. Need heat when there is less sun. A big system required. Costly. Heat pump hot water heaters include a refrigerant and they are prone to leakage. Recommended for super insulated homes. Driving down greenhouse gasses – solar hot water or solar panels PV? Do both. More energy comes through hot water panels. Maybe less PV's and a hot water system can provide a balance. Integrating a hot water system has to come early in the building design. Solar PV's have siphoned away the talent. There are few sellers of hot water systems. The Solarize Hot Water project generated 104 leads, 73 site visits, 59 feasible sites, 16 contracts. Payback over time for a hot water system is complicated. Ground mounts are possible. Stick close to the house to avoid loss of heat in unground piping. 70% solar access is doable for solar hot water; PV's 80% required. East/West system mounts work. Just add a panel. Awning mounts work. Labor market: is there a shortage of labor? We will just have to train someone with

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Adin Maynard • Ashley Muspratt • Richard Parasiliti • David Pomerantz • Tim Smith

• Ben Weil

Ex-officio, non voting: Chris Mason



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crossover skills, like boiler techs, farmers, carpenters. There is a dearth of people to work on older systems.

Climate Resiliency and Regeneration Plan: Tabled until next meeting.

Voting on IECC 2021:

Put in an order through the City Council. Dues were paid. City Council will have 4 votes. Several advisors including Chris. Ballot comes two weeks before the vote on an amendment. Open meeting law makes that difficult. Working this out is in the works. Slides of code changes submitted will be available. Can we delegate voting responsibility to four people? Boston is doing that. Their charter predates the state constitution. Mayor's office, Fire Department, Health Department, Building Dept, Planning Department, City Council – 6 voting groups of four for the city.

Ordinance Relative to Large-Scale Ground Mounted Solar Arrays:

Carolyn Misch is tasked with researching a number of issues. She met with Lily Lombard. Agreed to keep on the NESC agenda for a status check.

Adjournment: Bill Dwight moved, Adin Maynard seconded. Unanimous approval.

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